

IN THE CLAIMS:

Please amend the claims as follows:

Sub D1
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1. (Amended) A method of forming an isolation structure for a semiconductor device, comprising:
providing a layered structure comprising a semiconductor substrate, a dielectric layer, and a buffer film layer;
etching said layered structure through said buffer film layer, through said dielectric layer, and into said semiconductor substrate to define a trench having sidewalls and a bottom;
forming an oxide layer on exposed portions of said semiconductor substrate within said trench;
selectively etching a portion of said buffer film layer;
applying a layer of isolation material [over] directly to said buffer film layer [to fill] and filling said trench;
removing a portion of said isolation material layer above said buffer film layer; and
~~removing said buffer film layer~~

Sub D3
C2

11. (Amended) A method of forming a capped shallow trench isolation structure for a semiconductor device, comprising:
providing a layered structure comprising a semiconductor substrate, a dielectric layer, and a buffer film layer;
etching said layered structure through said buffer film layer, through said dielectric layer, and into said semiconductor substrate to define a trench having sidewalls and a bottom;
forming an oxide layer on exposed portions of said semiconductor substrate within said trench sidewalls and said trench bottom;
selectively etching a portion of said buffer film layer to expose opposing trench edges at an intersection of said trench sidewalls and an upper surface of said semiconductor substrate;
applying a layer of isolation material [over] directly to said buffer film layer [to fill] and filling said trench;
~~removing a portion of said isolation material layer above said buffer film layer;~~

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removing said buffer film layer; and
~~etching said isolation material to form said capped shallow trench isolation structure.~~

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25. (Twice Amended) A method of forming an isolation structure on a semiconductor device layered structure including a semiconductor substrate, a dielectric layer, and a buffer film layer, said layered structure including a trench through said buffer film layer, said dielectric layer, and into said semiconductor substrate, wherein an oxide layer is formed on exposed portions of said semiconductor substrate within said trench, comprising:
selectively etching a portion of said buffer film layer;
applying a layer of isolation material [over] directly to said buffer film layer [to fill] and filling said trench;
removing a portion of said isolation material layer above said buffer film layer; and
~~removing said buffer film layer.~~

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33. (Amended) A method of forming a capped shallow trench isolation structure for a semiconductor device layered structure including a semiconductor substrate, a dielectric layer, and a buffer film layer, said layered structure including a trench through said buffer film layer, said dielectric layer, and into said semiconductor substrate, wherein an oxide layer is formed on exposed portions of said semiconductor substrate within said trench, comprising:
selectively etching a portion of said buffer film layer to expose opposing trench edges at an intersection of said trench and an upper surface of said semiconductor substrate;
applying a layer of isolation material [over] directly to said buffer film layer [to fill] and filling said trench;
removing a portion of said isolation material layer above said buffer film layer;
removing said buffer film layer; and
~~etching said isolation material to form said capped shallow trench isolation structure.~~